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This material is based upon work funded and supported by the Department of Defense under Contract No. FA8721-05-C-0003 with Carnegie Mellon University for the operation of the Software Engineering Institute, a federally funded research and development center.

DM-0003080

Using Network Flow to Gain Cyber Situational Awareness

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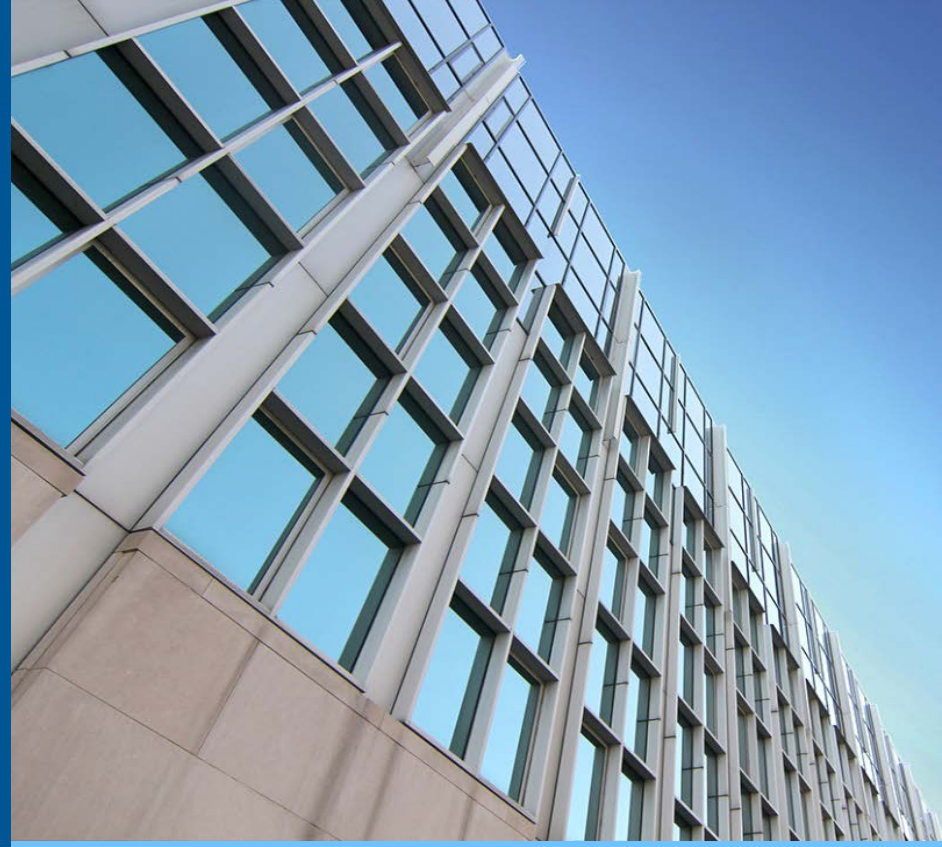


Polling Question 1

How familiar are you with the concept of “Cyber Situational Awareness”?

- Sounds interesting, but I haven’t put much thought into it
- I’m familiar with situational awareness, but have never applied it to cyber
- It’s an important part of my work but I would like to better understand it
- I’ve studied and applied the concept extensively

Polling Question 2

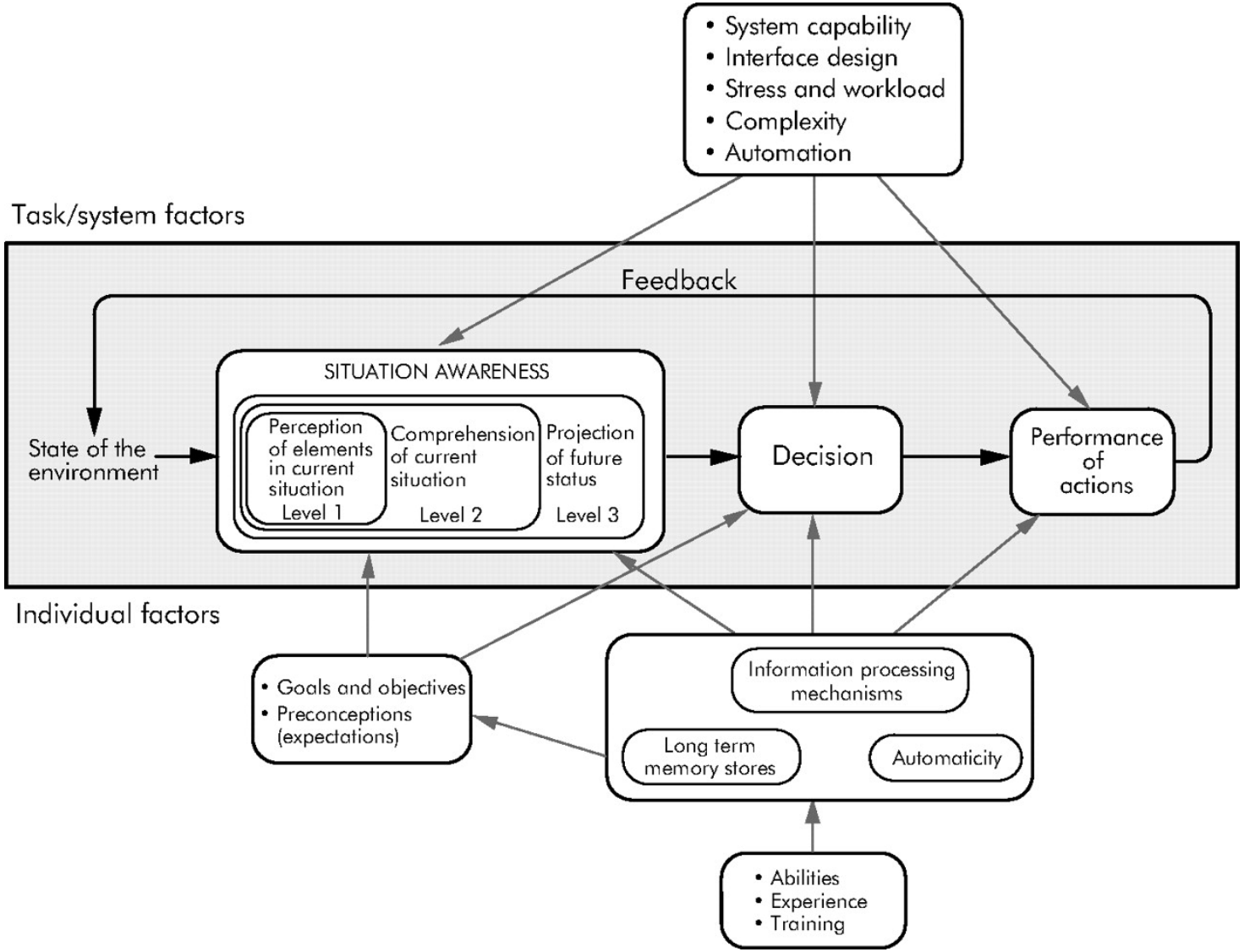
What is your background?

- Executive management
- Technical management
- Operational leader (e.g., shift supervisor)
- Technical or operational staff

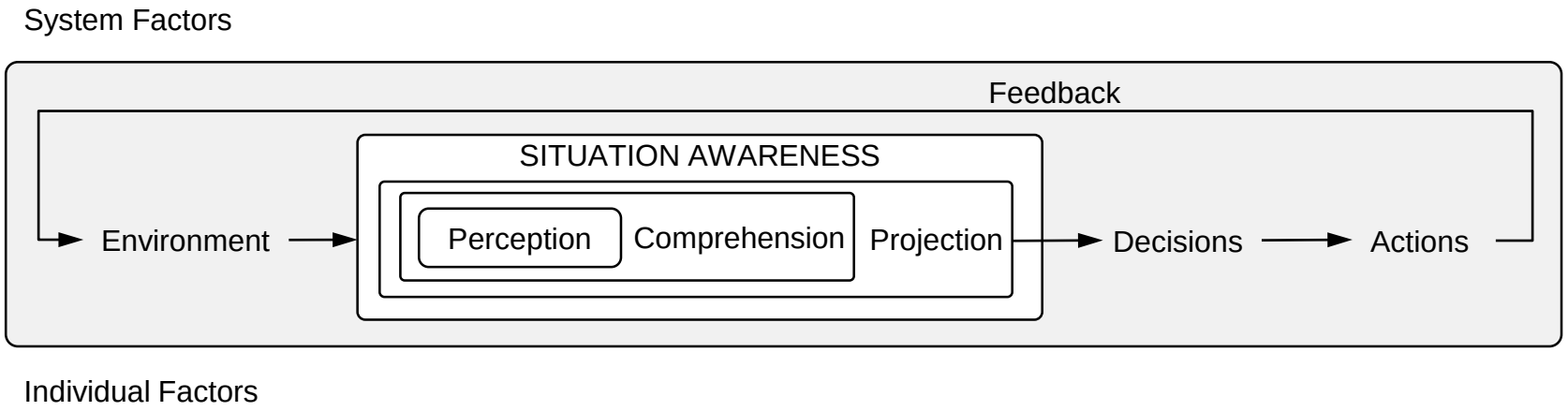
Situation Awareness Is a State of Knowledge

Situation awareness is the perception of the elements in the environment within a volume of time and space, the comprehension of their meaning, and the projection of their status in the near future.

Endsley, M. R. SAGAT: A methodology for the measurement of situation awareness (NOR DOC 87-83). Hawthorne, CA: Northrop Corp.



Endsley, M. R. *Toward a Theory of Situation Awareness in Dynamic Systems*. Human Factors, 1995, 37(1), 32-64



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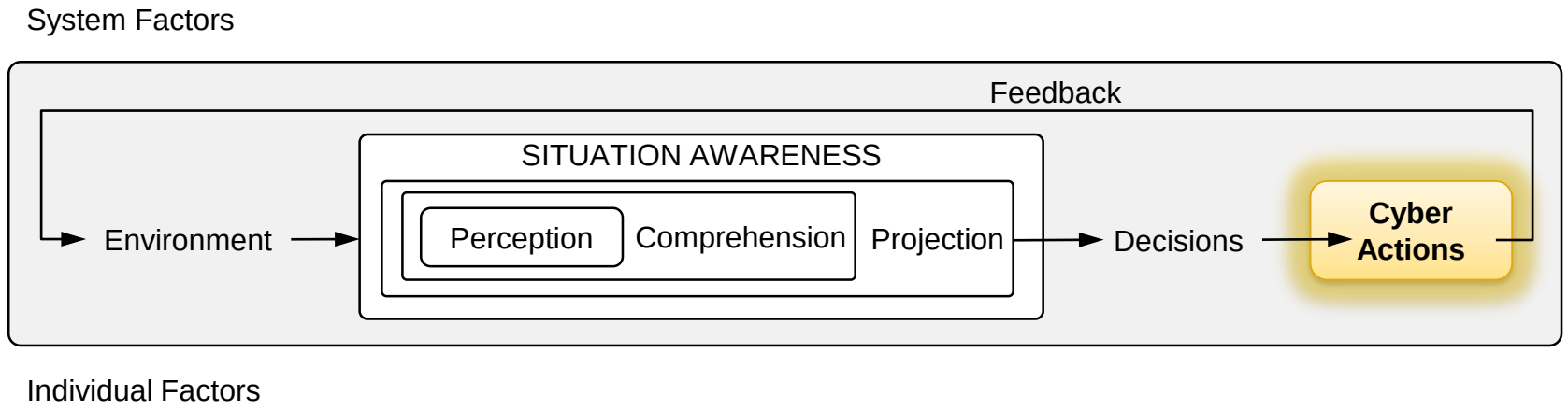

Cyber situational awareness is the subset of all situation awareness necessary to support taking actions in cyber.

The Open System Model

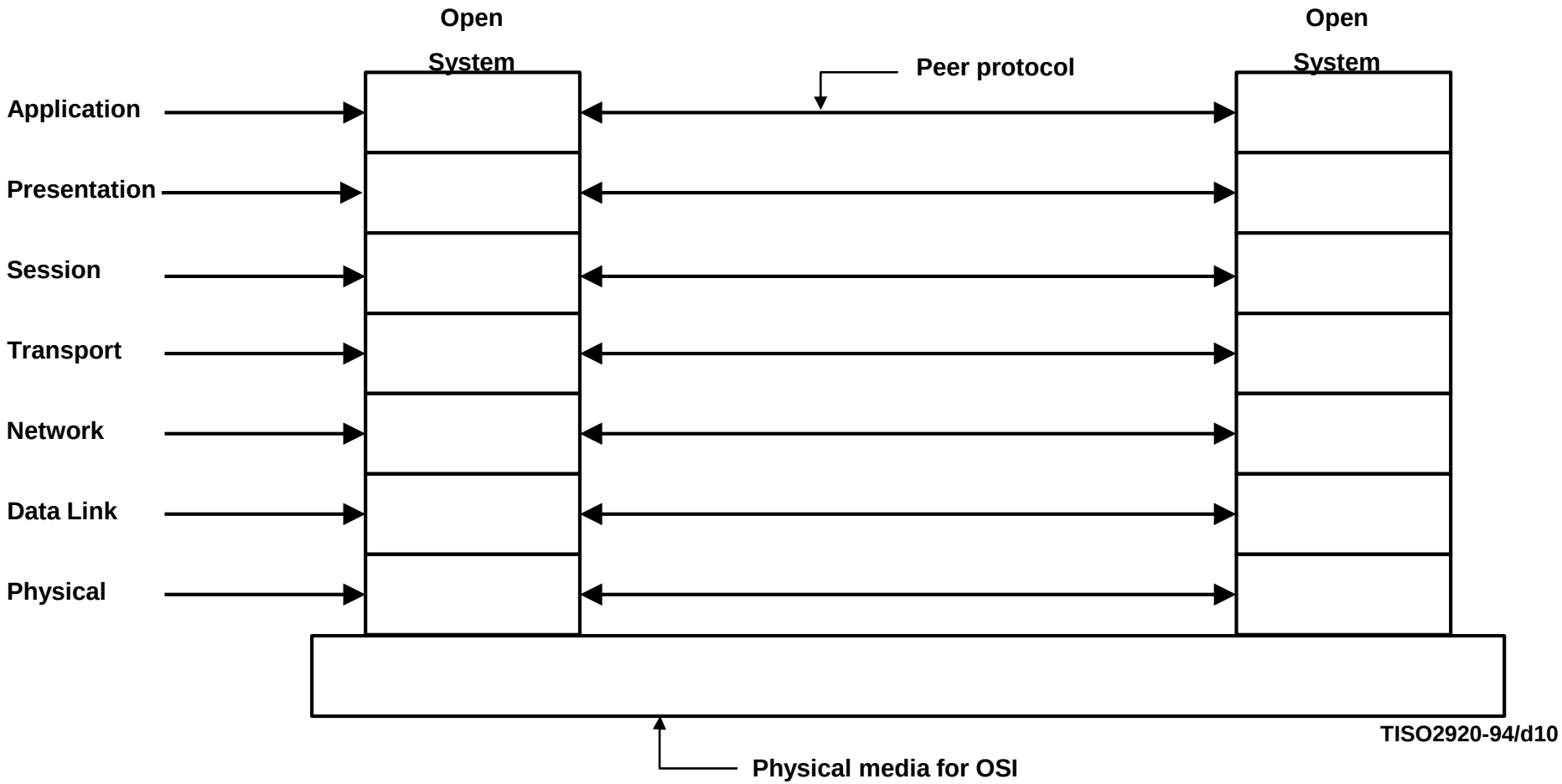

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Figure 11 – Seven layer reference model and peer protocols

The Open System Model

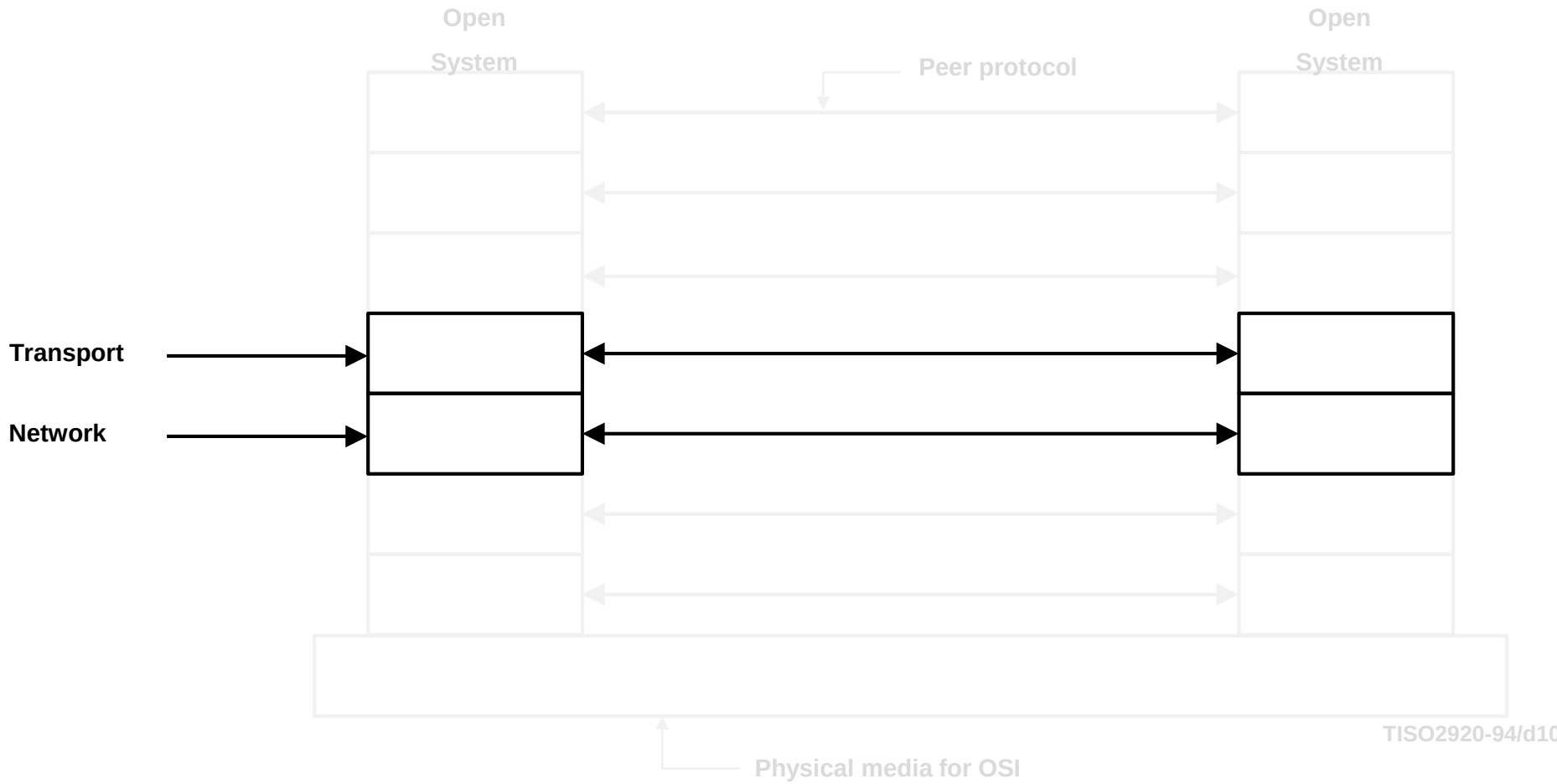

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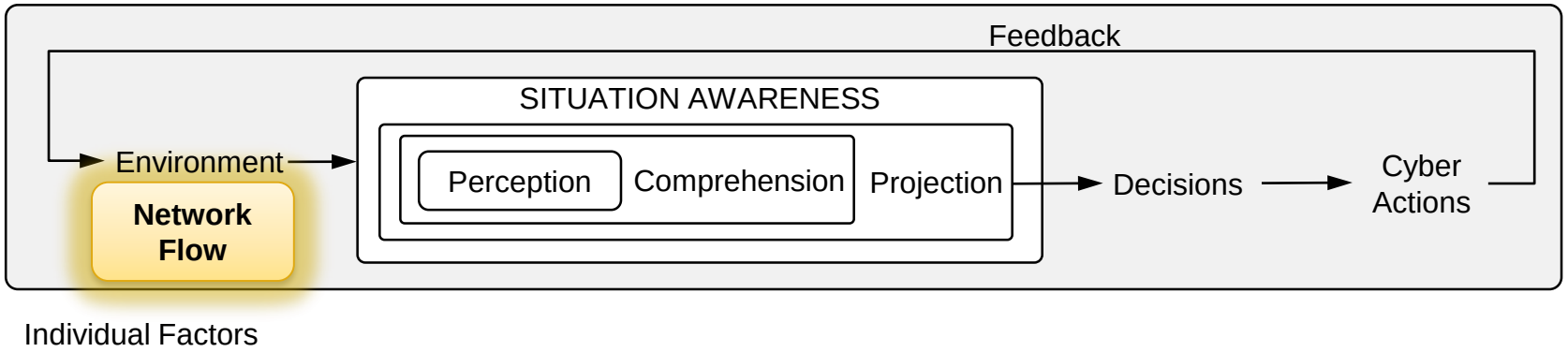
Figure 11 – Seven layer reference model and peer protocols

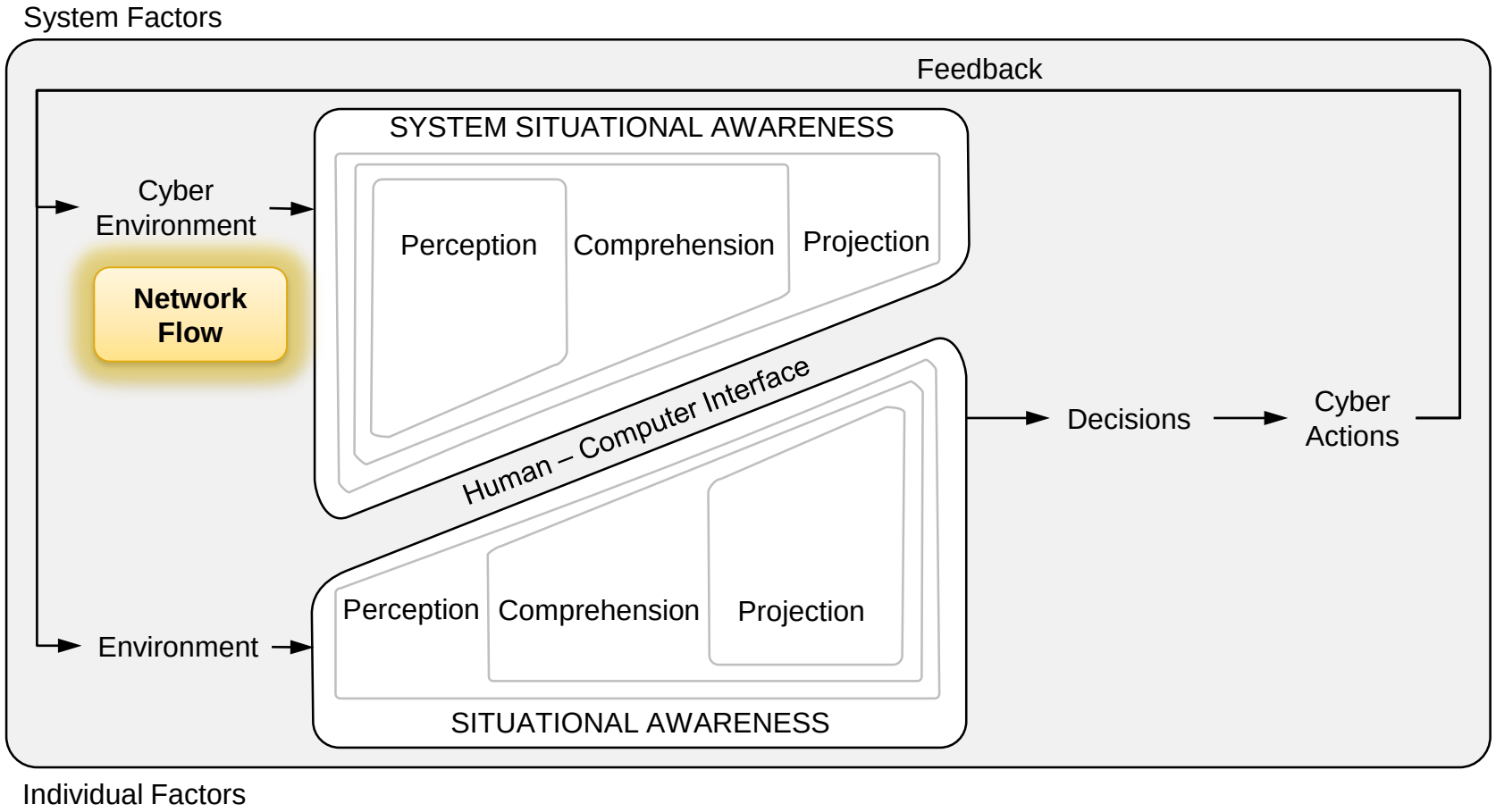
Environment

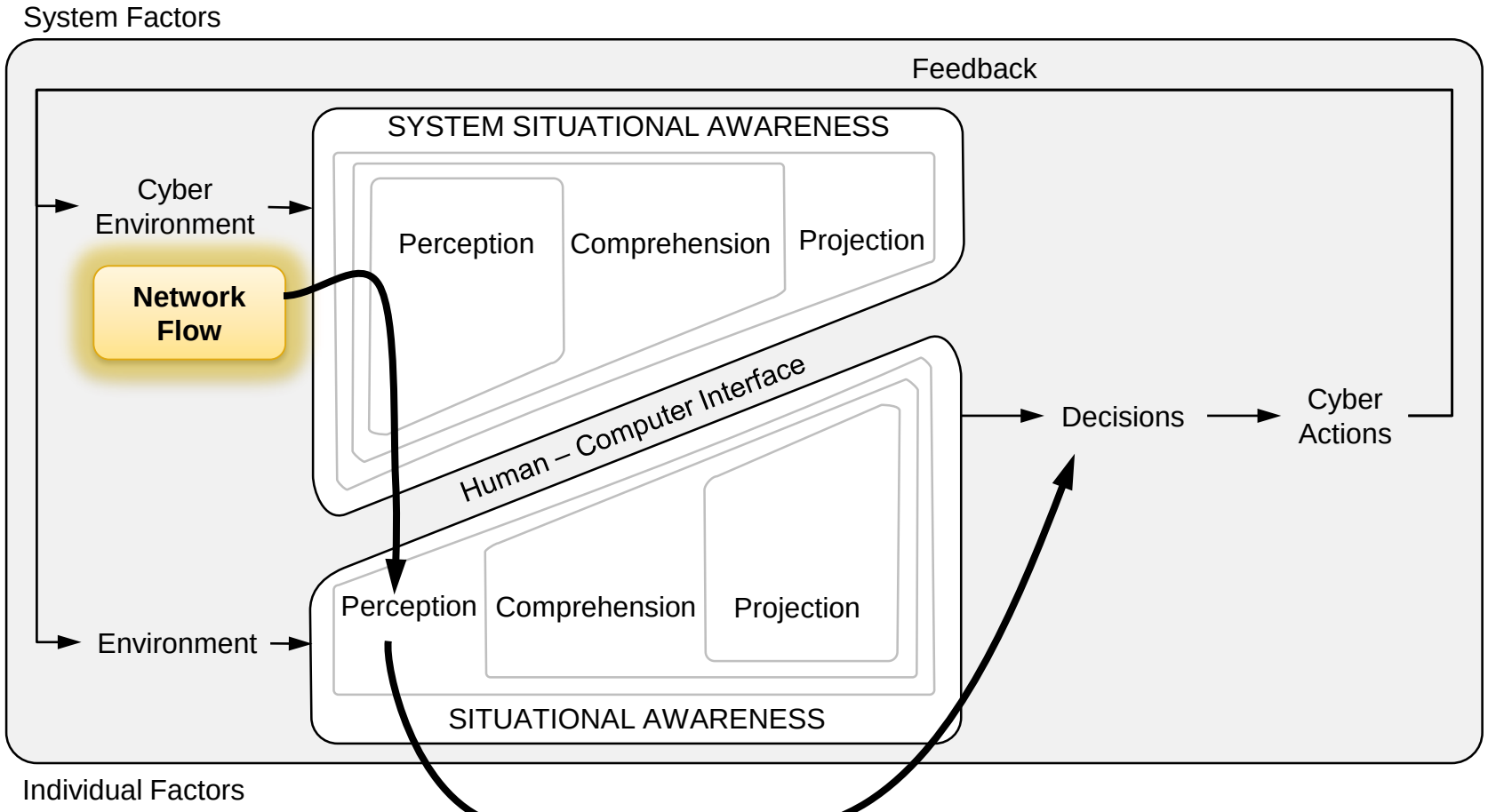
System Factors



Individual Factors

Cyber situational awareness is the subset of all situation awareness necessary to support taking actions in cyber.



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          sIP|          dIP|sPort|dPort|pro|packets|flags|initF|  type|
192.168.1.105| 198.51.100.6|49152|   80|  6|      4| SRPA| S   |outweb|
 198.51.100.6|192.168.1.105|   80|49152|  6|      3| S PA| S  A| inweb|
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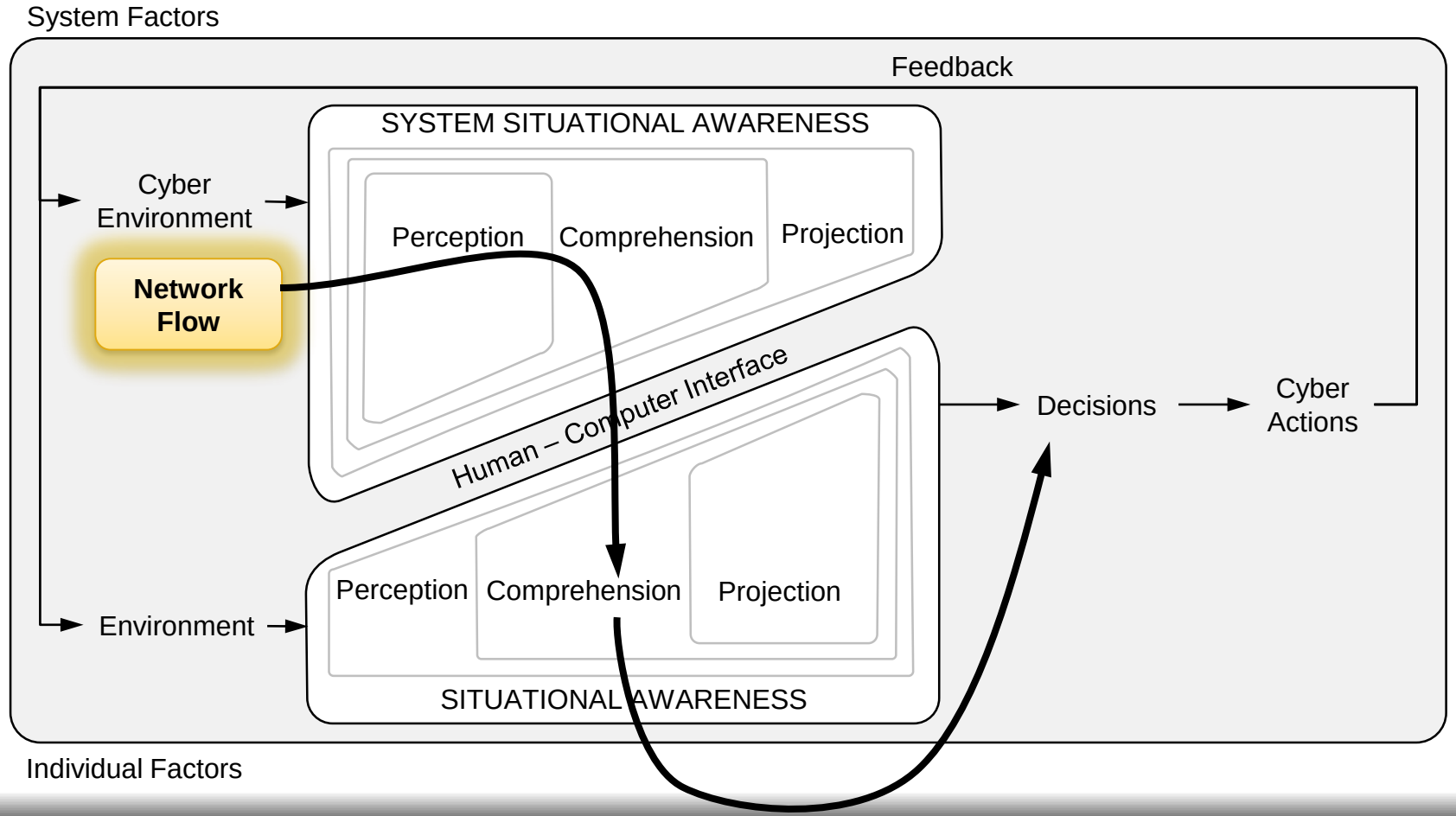
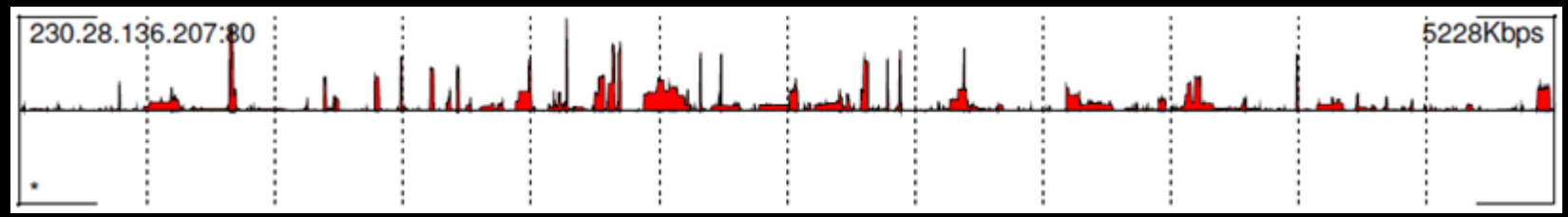
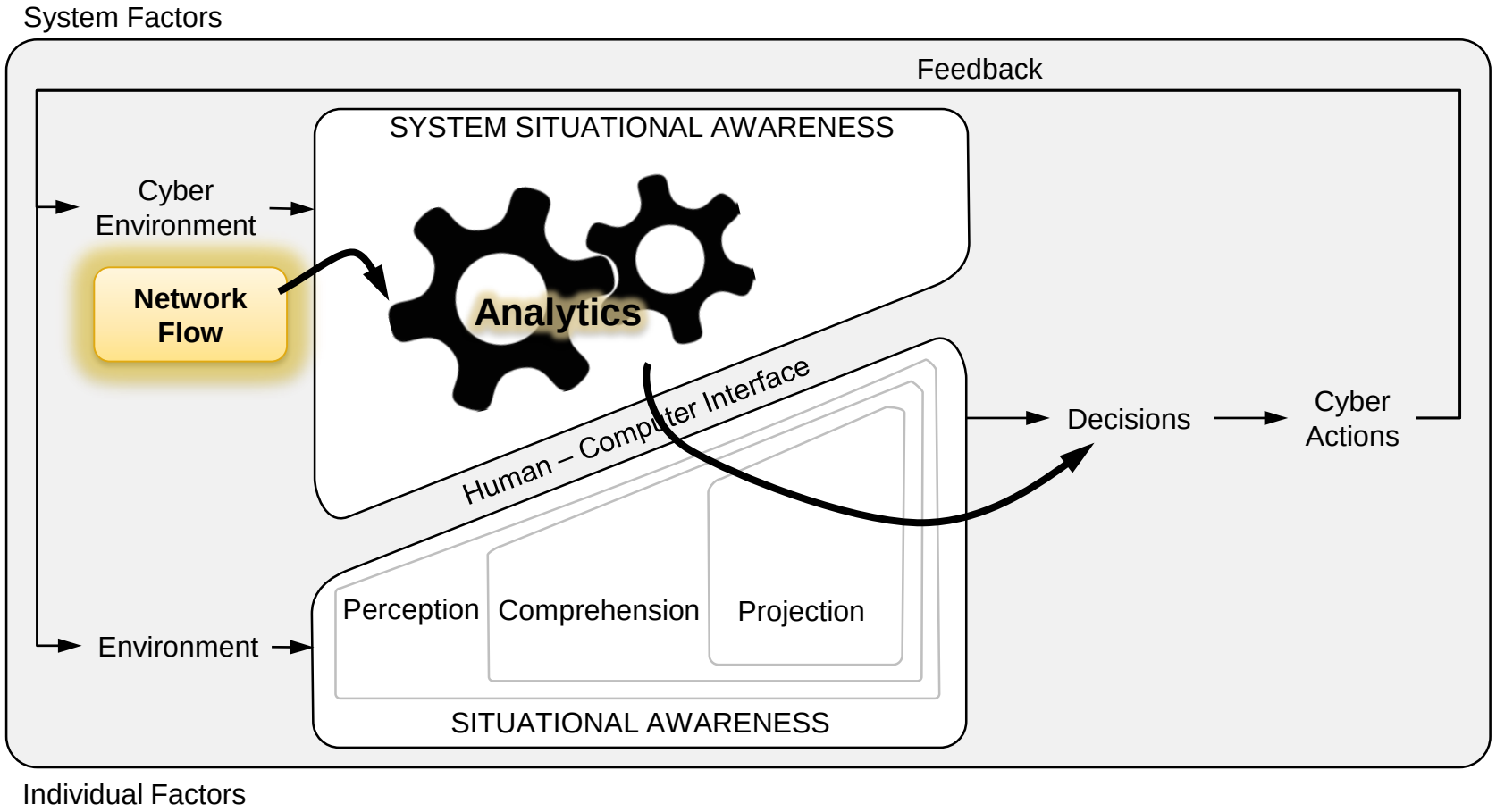
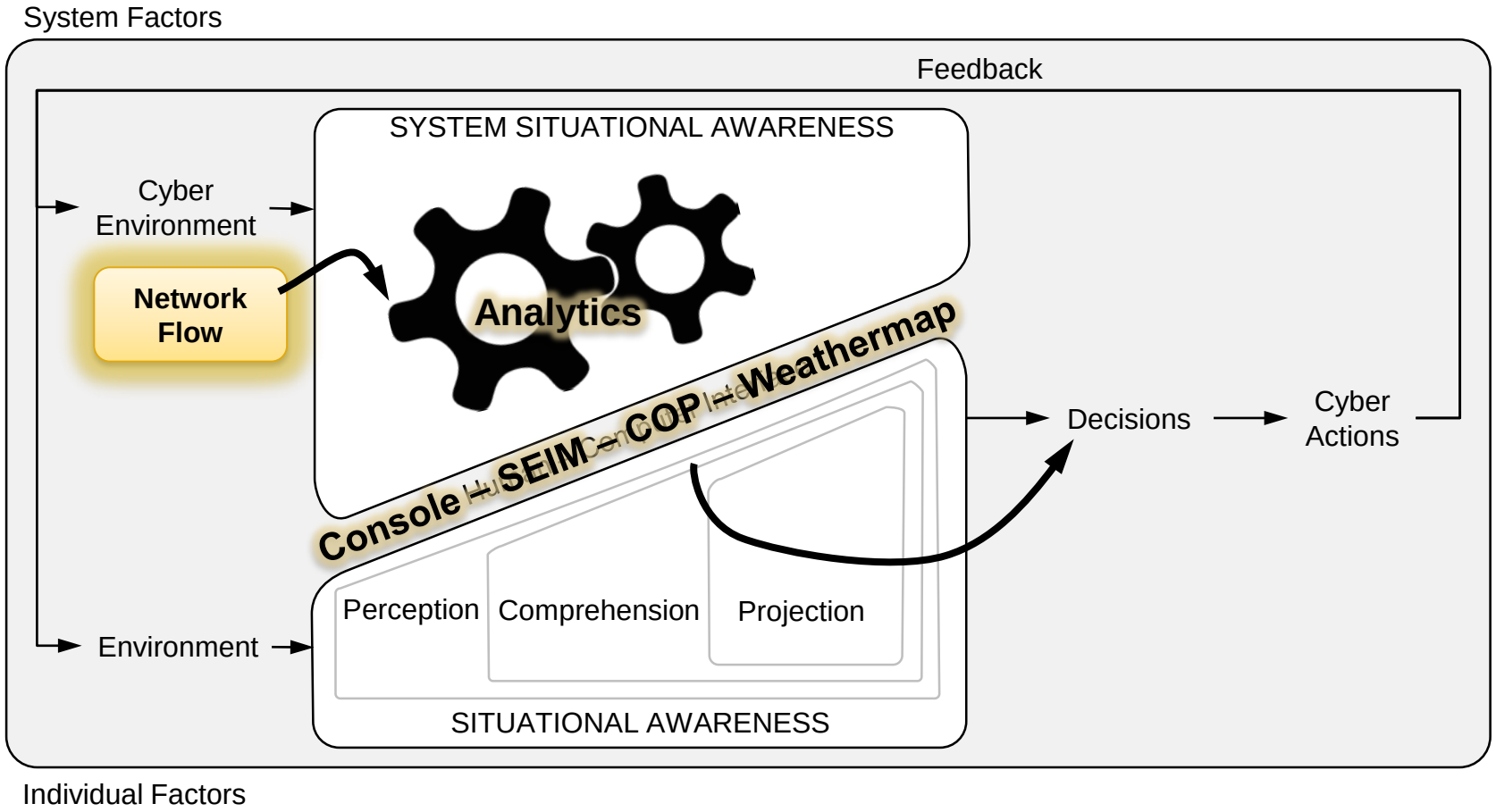
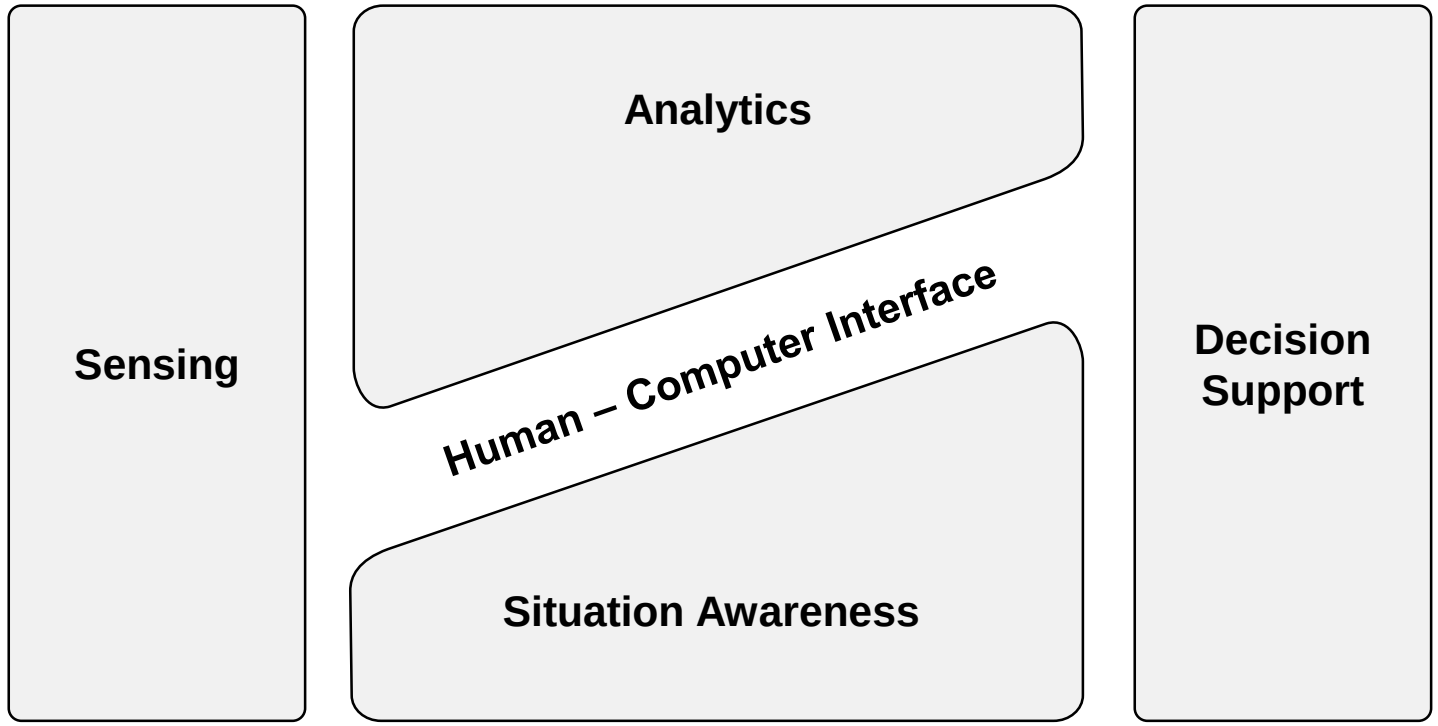




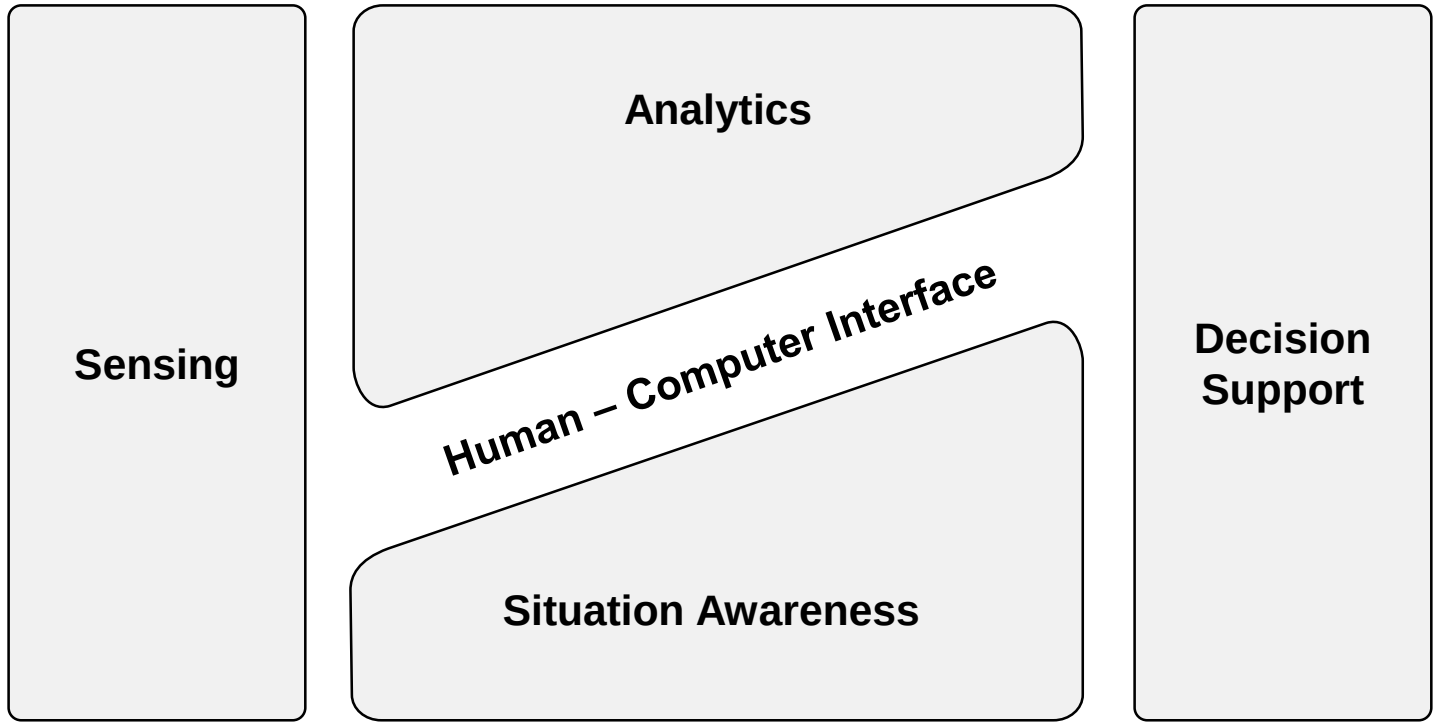


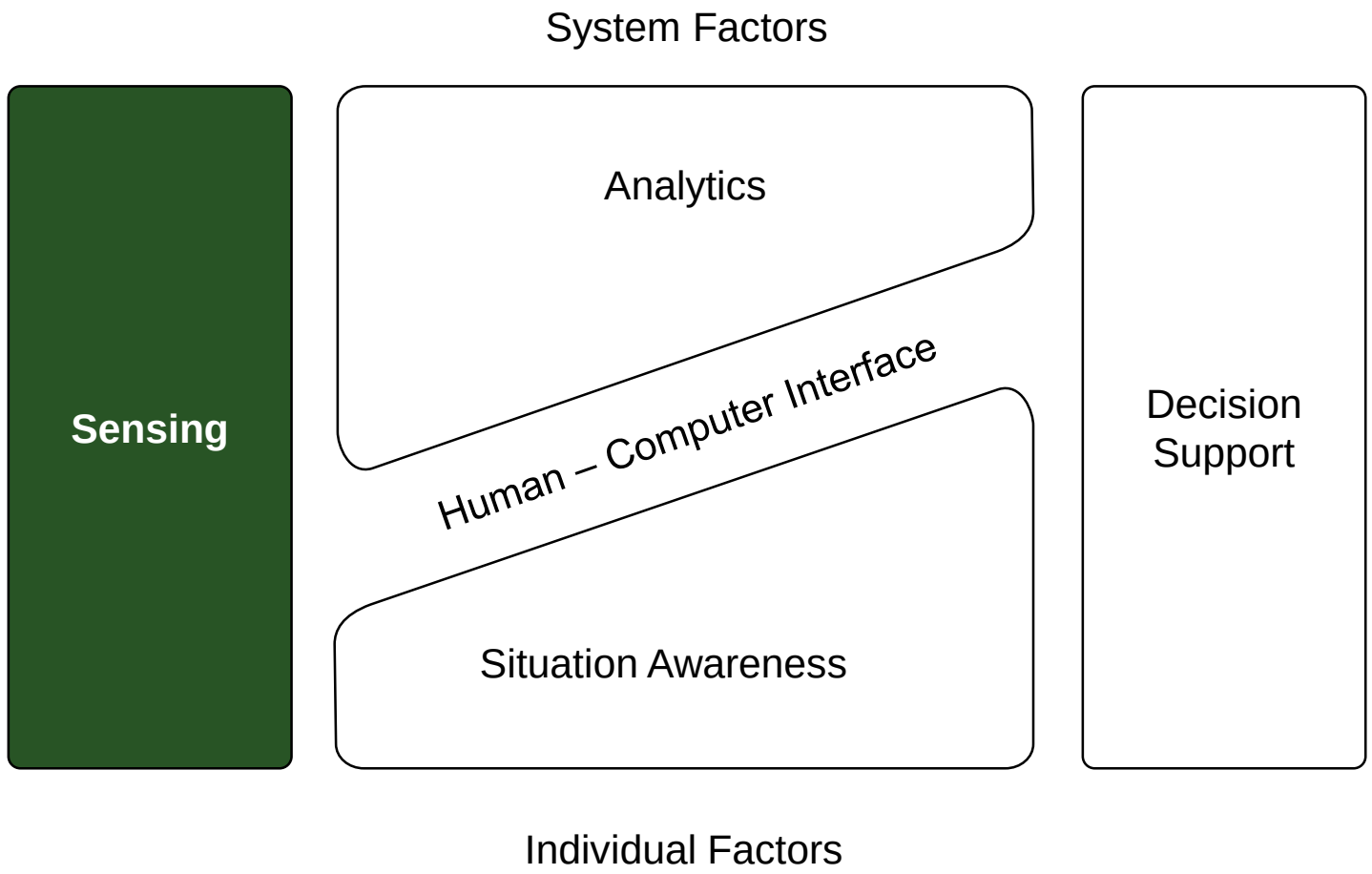


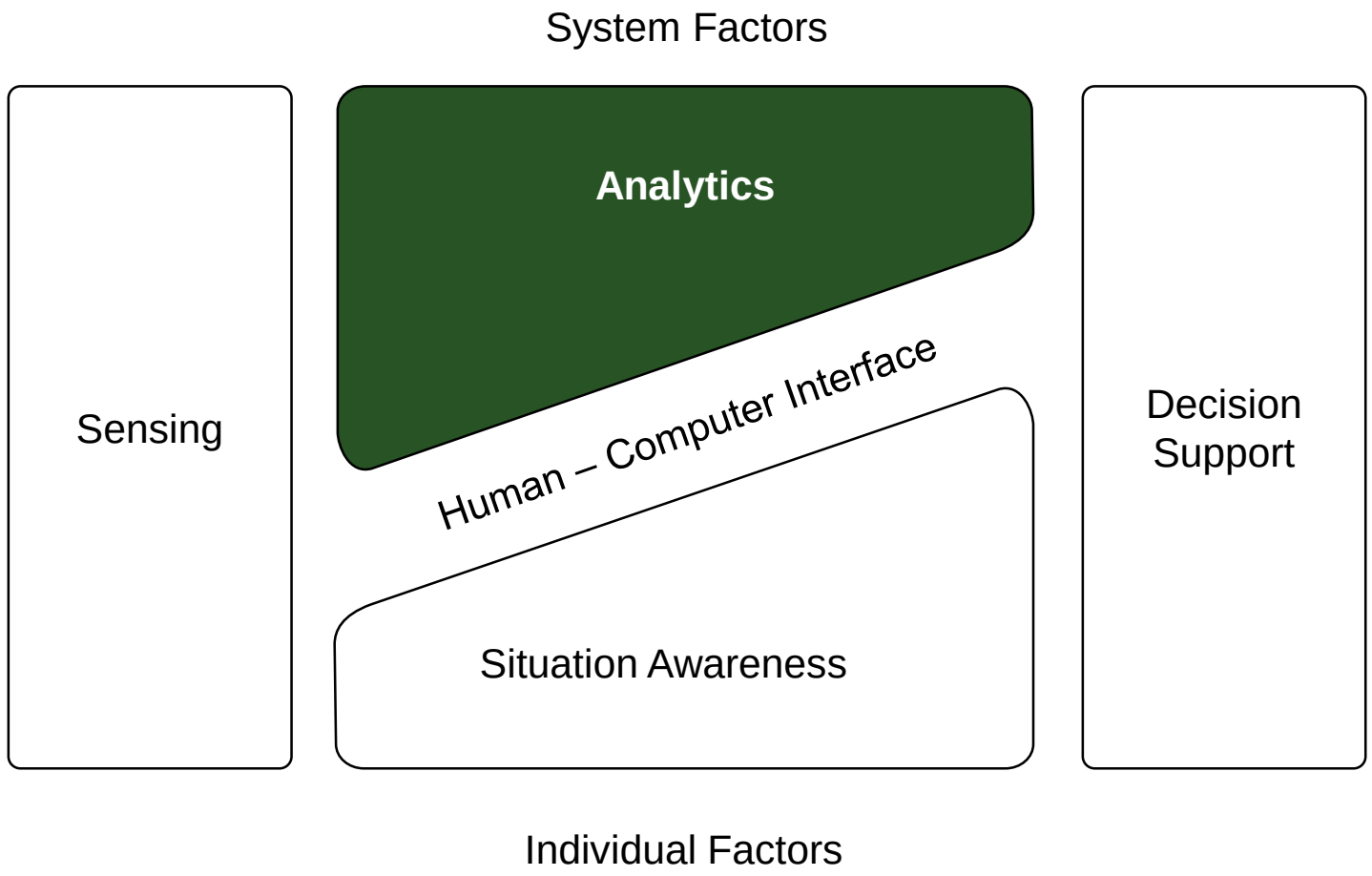


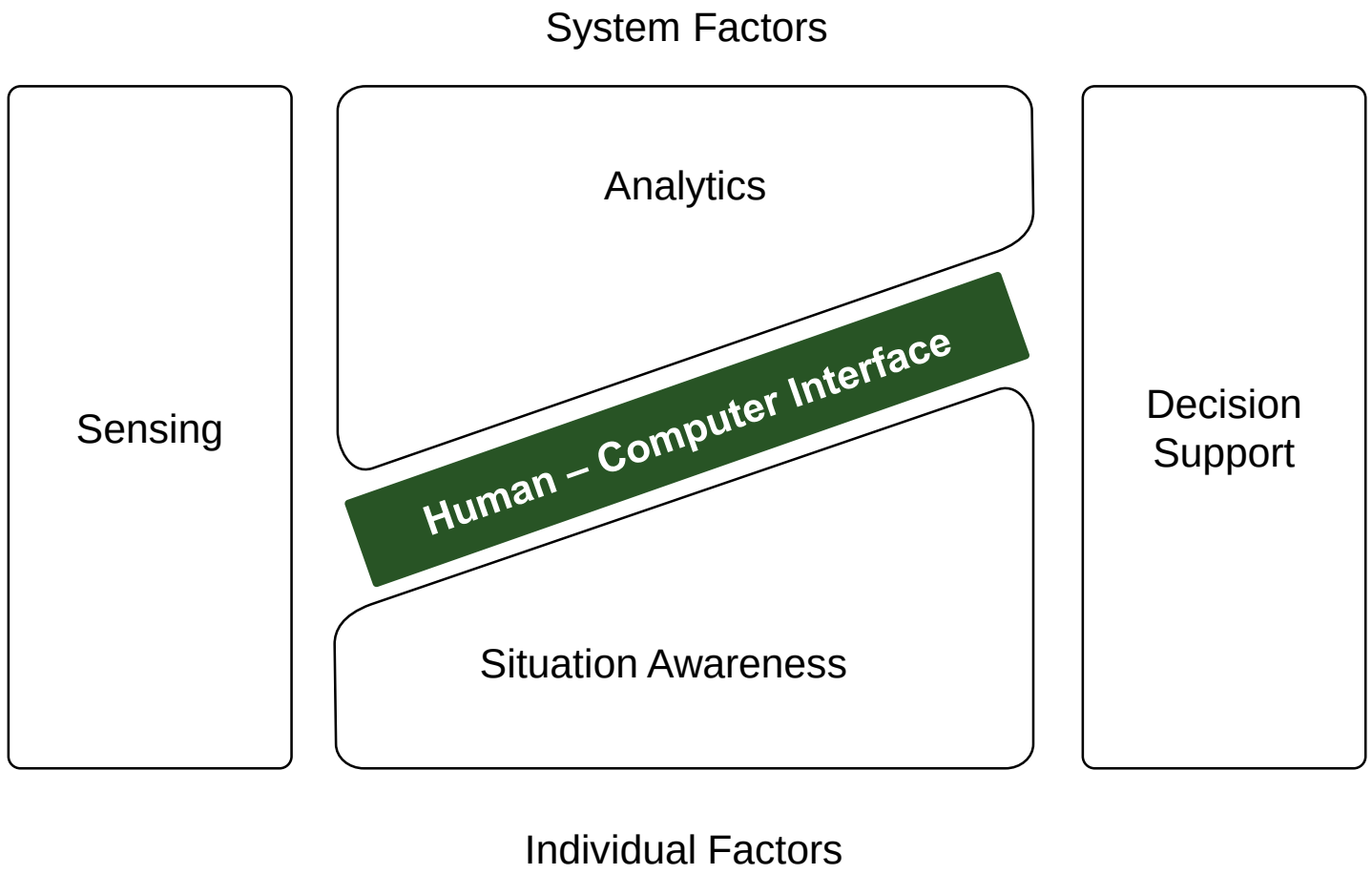
Polling Question 3:

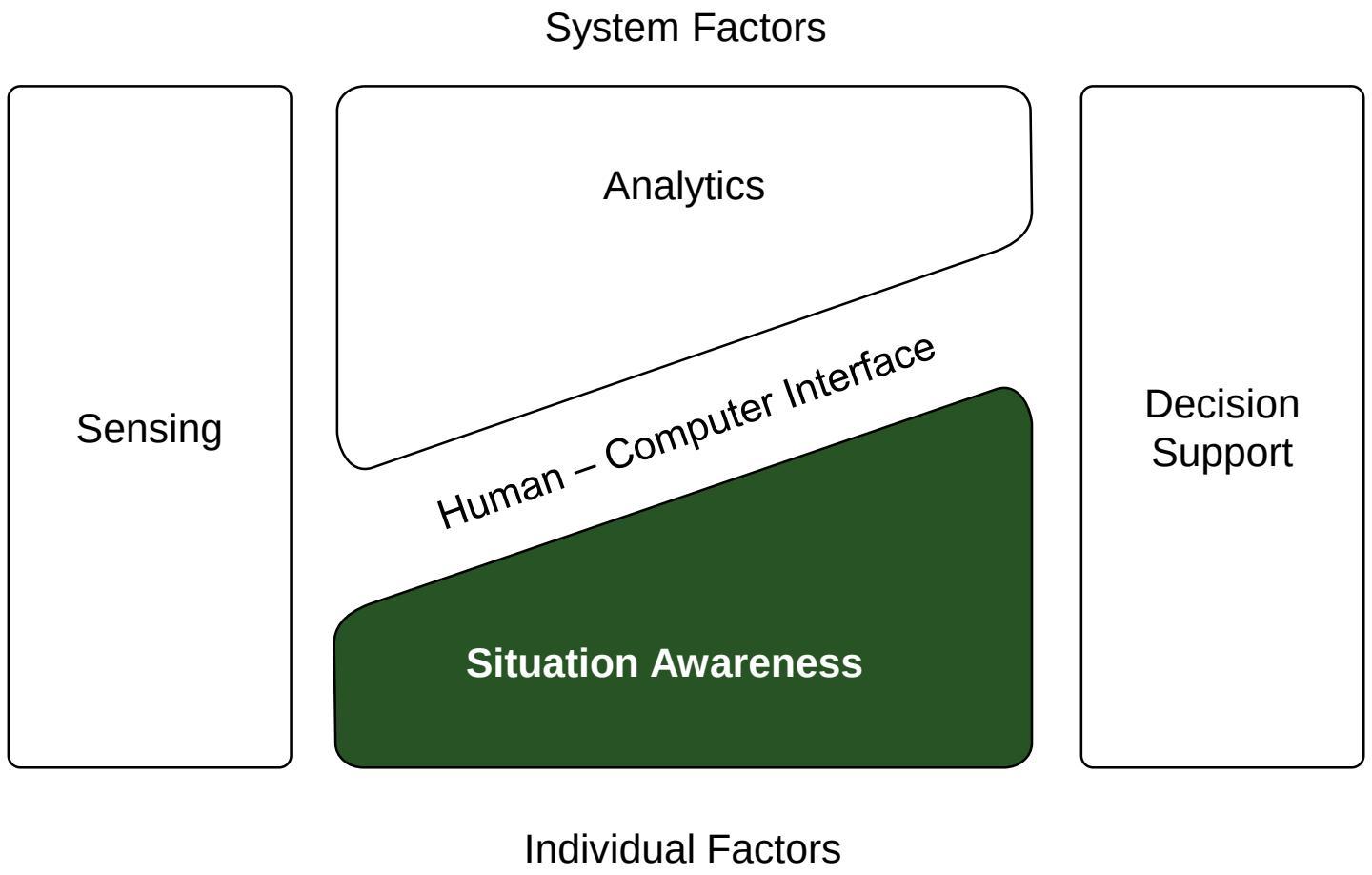
What should we discuss in more detail?

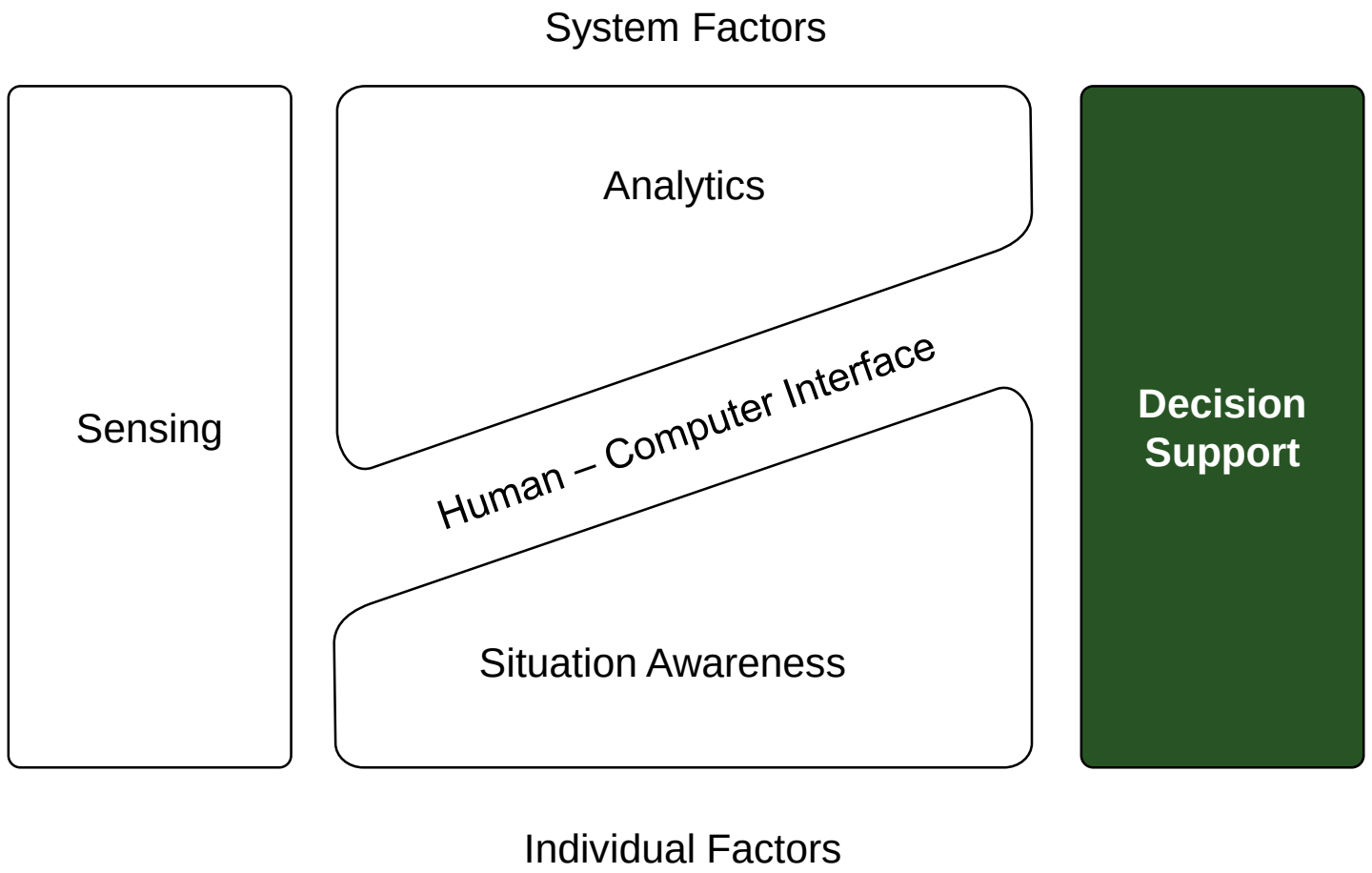












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